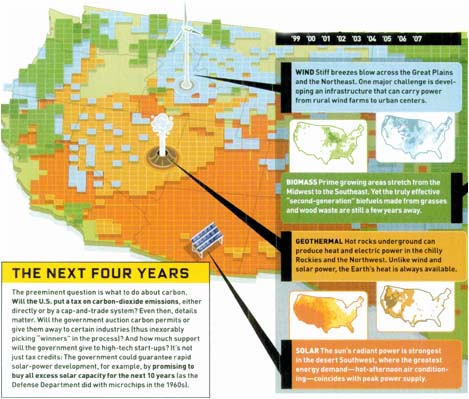
Section: SCI TECH POLITICS 2008 ***ENERGY***

It may be the most important question the country faces: What will we do about ***energy***?

***Energy*** is the blood that runs through our economy: the highway miles paved with crude, the kilowatts of coal, those tentative first heartbeats of large-scale wind and solar. America famously uses more ***energy*** than any other country — measured either per capita or in total — and conservation measures aside, our rising standard of living will mean that we will consume even more in the future. The question is: From where? Will we continue to pay overseas suppliers for increasingly scarce crude? Will we continue to burn mountains of coal and hope the effects aren't catastrophic? Or will we encourage new technologies, new domestic sources that we control (and export), new ***energy*** industries that create jobs and boost the economy? Below, we explore the data points that must inform how the U.S. moves forward. Our lifeblood depends on it.

[**THE NEW ENERGY LANDSCAPE**](http://web.ebscohost.com/ehost/detail?vid=9&hid=10&sid=6b812f87-bd71-42b4-bcbc-d542472b7836%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#toc)

The U.S. is rich in the natural resources that will power the alternative-***energy*** age. Our map of the continental U.S. [below] shows that wind, biomass, geothermal and solar sources together cover most of the country. But to tap that power, Congress must create long-term certainty in the ***renewable***-power market.

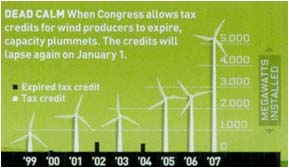


[THE NEXT FOUR YEARS](http://web.ebscohost.com/ehost/detail?vid=9&hid=10&sid=6b812f87-bd71-42b4-bcbc-d542472b7836%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#toc)

The preeminent question is what to do about carbon. Will the U.S. put a tax on carbon-dioxide emissions, either directly or by a cap-and-trade system? Even then, details matter. Will the government auction carbon permits or give them away to certain industries (thus inexorably picking "winners" in the process)? And how much support will the government give to high-tech start-ups? It's not just tax credits: The government could guarantee rapid solar-power development, for example, by promising to buy all excess solar capacity for the next 10 years (as the Defense Department did with microchips in the 1960s).

*THE NEW* ***ENERGY*** *LANDSCAPE*

*DEAD CALM When Congress allows tax credits for wind producers to expire, capacity plummets. The credits will lapse again on January 1.*



**WIND** Stiff breezes blow across the Great Plains and the Northeast. One major challenge is developing an infrastructure that can carry power from rural wind farms to urban centers.

**BIOMASS** Prime growing areas stretch from the Midwest to the Southeast. Yet the truly effective "second-generation" biofuels made from grasses and wood waste are still a few years away.

**GEOTHERMAL** Hot rocks underground can produce heat and electric power in the chilly Rockies and the Northwest. Unlike wind and solar power, the Earth's heat is always available.

**SOLAR** The sun's radiant power is strongest in the desert Southwest, where the greatest ***energy*** demand — hot-afternoon air conditioning — coincides with peak power supply.

Sources: National ***Renewable*** ***Energy*** Laboratory, Emerging ***Energy*** Research, ***Energy*** Information Agency, U.S. department of Agriculture, Swiss Re

[WHERE IT COMES FROM AND WHERE IT GOES](http://web.ebscohost.com/ehost/detail?vid=9&hid=10&sid=6b812f87-bd71-42b4-bcbc-d542472b7836%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#toc)

Here, a snapshot of ***energy*** in America today. The four main consumers of energy: electric power plants, transportation, industry, and the boilers in individual homes and businesses, The main sources of energy are Fossil fuels that make up more than 80 percent of the total, and a closer look at ***renewables*** shows that most of that comes from damming rivers and burning wood.

[ENERGY CONSUMPTION BY SOURCE](http://web.ebscohost.com/ehost/detail?vid=9&hid=10&sid=6b812f87-bd71-42b4-bcbc-d542472b7836%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d" \l "toc)

ELECTRIC POWER 40%

TRANSPORTATION 28.5%

INDUSTRIAL 21.1%

RESIDENTIAL & COMMERCIAL 10.4%

***RENEWABLE*** ***ENERGY*** 6.7%

NUCLEAR ELECTRIC POWER 8.3%

COAL 22.4%

NATURal GAS 23.3%

PETROLEUM 39.3%

[RENEWABLE ENERGY SOURCES](http://web.ebscohost.com/ehost/detail?vid=9&hid=10&sid=6b812f87-bd71-42b4-bcbc-d542472b7836%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#toc)

HYDROELECTRIC POWER 36%

WOOD 32%

BIOFUELS 15%

WASTE 6%

GEOTHERMAL 5%

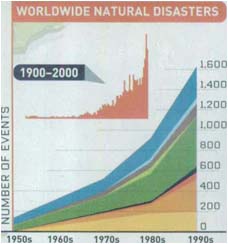
WIND 5%

SOLAR 1%

[THE MANY PRICES OF PETROLEUM](http://web.ebscohost.com/ehost/detail?vid=9&hid=10&sid=6b812f87-bd71-42b4-bcbc-d542472b7836%40sessionmgr10&bdata=JnNpdGU9ZWhvc3QtbGl2ZQ%3d%3d#toc)

**American oil consumption** continues to rise, even though domestic production peaked in the early 1970s. The imports that make up the difference come at an increasingly high price and are projected to lead to wealth transfer from the U.S. to increasingly hostile nations. In addition, the resulting carbon emissions have led to ever more erratic weather and thus more natural disasters.

***OIL IN THE U.S.***



2008). AMERICAN POWER. *Popular Science*, *273*(5), 76. Retrieved from MAS Ultra - School Edition database.